Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) An isolated nucleic acid encoding a cyclic nucleotide-gated cation channel subunit 3B (CNG3B) polypeptide ~~subunit of a cation channel~~, the polypeptide:

(i) forming, with at least one ~~additional~~ alpha subunit, a cation channel having the characteristic of cyclic nucleotide-gating; and

(ii) comprising a subsequence having at least 85% amino acid sequence identity to ~~amino acids 210 to 661 of~~ SEQ ID NO:1.

2. (Currently amended) The nucleic acid of claim 1, wherein the polypeptide ~~specifically binds to antibodies generated against a polypeptide comprising an amino acid sequence of~~ comprises a subsequence having at least 90% amino acid sequence identity to SEQ ID NO:1.

3. (Original) The nucleic acid of claim 1, wherein the nucleic acid encodes a polypeptide comprising an amino acid sequence of SEQ ID NO:1.

4. (Original) The nucleic acid of claim 1, wherein the nucleic acid comprises a nucleotide sequence of SEQ ID NO:2 or SEQ ID NO:3.

5. (Canceled)

6. (Original) The nucleic acid of claim 1, wherein the polypeptide comprises a beta subunit of a heteromeric cyclic nucleotide gated cation channel.

7. (Currently amended) The nucleic acid of claim 1, wherein the ~~nucleic acid specifically hybridizes under moderately stringent hybridization conditions to a nucleic acid~~

~~comprising a nucleotide sequence of SEQ ID NO:2 or SEQ ID NO:3, wherein the hybridization reaction is incubated overnight at 37°C in a solution comprising 40% formamide, 1 M NaCl and 1% SDS, and washed at 45°C in a solution comprising 1x SSC~~ polypeptide comprises a subsequence having at least 95% amino acid sequence identity to SEQ ID NO:1.

8-17. (Canceled)

18. (Original) An expression vector comprising the nucleic acid of claim 1.

19. (Original) A host cell transfected with the vector of claim 18.